

Maine Health Data Organization

Health Data Warehouse RFP

Responses to Questions

August 15, 2012

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## General

The Agency received over 350 questions from multiple prospective bidders. The Agency has made its best effort to respond to all submitted questions. However, in cases where questions were largely redundant between prospective bidders, the Agency has selected the most representative question for the subject area or rephrased the question in order to be more responsive.

## DATABASE SIZE, LOAD, AND CONCURRENCY

- 1) What are the estimates of the current data storage requirements and how will they increase over the life of the contract? How many unique patients, providers, and insurance entities exist in the current data repository? What server resources (CPU, RAM) does the current system utilize?**

The current data held by the MHDO across its structured data streams is approximately 2 terabytes. The growth of this structured data is approximately 400 gigabytes per year. Vendors should note that the current database structure is not purely relational and there is significant duplication of data in the current system. Moving to a more pure relational model (or other more efficient data structure) could potentially reduce the data storage requirements by at least 20%.

The current data structures hold 263 payers, approximately 80,000 providers, and approximately 1.5 million patients.

The APCD server currently has a 2.2 GHz duo processor and 3 GB of RAM.

Attached as appendix QA-A are the current APCD tables and data elements contained within each.

- 2) What is the anticipated volume required for testing / development environments? Will there need to be a current copy of data from production? What is the methodology and application for copying data from production to a test / development environment?**

The vendor is responsible for maintaining test development environments, including at least one environment that is a current copy of production. The methodology for copying production data to test/development environments will be determined in the design phase.

- 3) What is the typical number of file requests that MHDO receives and roughly what are the sizes on per month basis?**

The Agency currently handles approximately 50-60 data requests annually, each representing between 10 – 25 gigabytes. This does not include users of the current “HealthCost” web site, which provides specific procedure cost information to consumers. The Agency does not currently hold statistics for the use of this site.

- 4) What are the typical sizes and frequencies for file upload from participating providers/payers?**

Attached as appendix QA-B is a detailed list of all APCD file submissions by date and size for 2011. This information provides periodicity and volume thresholds.

**5) Please specify the maximum number of concurrent users on this solution by type of user during each year of the project so we can see the anticipated growth in the maximum number of concurrent users over the life of the entire project.**

Initial total user volume is projected to be small, i.e., typically under 100 concurrent users. The Agency anticipates that it will be very rare that data requestors are simultaneously making large data requests. It will be more common for data submitters to be concurrently submitting data, since data files are due on a scheduled basis. While user volume will be small, the volume of data requested will be high, up to 25+ gigabytes per request. Thus, while concurrency is not a great concern, efficiency of data uploads and downloads for single users is.

The Agency envisions developing and promoting its consumer focused information through the web portal. As this portal becomes more robust the Agency anticipates a higher volume of concurrent users, but still not a significant number from an industry standard perspective (i.e., < 100 at any given time). These users will also require significantly less data throughput, since their interactions with the site will be primarily to investigate specific procedures and providers.

Roles and access of users will be further defined with the successful bidder, but at a high level there will be:

- Data submitters
- Administrators / Internal Researchers
- Data requesters
- Health Consumers
- Executives.

## **HISTORY / ARCHIVE**

**6) Please provide the actual number of years of historic data that you anticipate loading into the data warehouse for all current data feeds. Please identify the number of years of data that you require to be stored in the data warehouse for each of the data sources during the term of the contract. How often will data be moved from the data warehouse to archive? Will there be requirements to bring archived data online?**

All to be determined. The Agency anticipates that, with the successful bidder, it will define a threshold for the storage of historical data and will define a process and a facility for storing data older than the threshold. There is no current historical archive, and the Agency anticipates a decision will be based on performance considerations and analysis of recent data requests. The method of access to archived data will also be determined.

**7) Do we assume that for the purposes of conversion that data already resides in MHDO server? Or do we have to extract it from the repository at OnPoint?**

For the purposes of conversion the data resides in MHDO servers.

- 8) How would the MHDO like to handle historical records that do not meet the new error checks and data standards that will be enforced during the conversion period? Should non-compliant records that cannot be corrected due to missing or inadequate attributes be marked and segregated or eliminated from the new data warehouse?**

Historical data that has been accepted previously into the warehouse that does not meet new / current standards should be flagged in metadata with the appropriate information such that data requesters will be aware of what standards were in effect at the time of acceptance. These data should not be segregated or eliminated from the warehouse.

## ETL

- 9) What extract functions will be required? Is there any custom ETL process implemented today? Can you provide the data models, ETL routines, semantic models and any other related deliverable for each of the existing data feeds?**

Extracts are primarily the responsibility of the data submitters. The structures of the feeds themselves are described in the rules <http://mhdo.maine.gov/imhdo/rules.aspx>. The validations applied to the data feeds are contained in Appendix QA-C to these questions (edits).

- 10) Requirement for an ETL test automation tool is not explicitly mentioned. Is that preferable?**

Testing processes and tools will be determined between the Agency and the successful bidder.

- 11) It appears that the member and subscriber names are encrypted (fields are called Encrypted Subscriber Last Name, Encrypted Subscriber First Name, etc.) in the input file format. If this is true, we cannot build a Master Patient Index, unless each provider uses the same encryption method, which is highly unlikely. Are the member and subscriber names encrypted on input as described on pages 24 and 39 of the Chapter 243 document?**

Each data submitter should use the same encryption method, since the defined protocol for submission of data is for data submitters to use an encryption algorithm provided by the MHDO. Typically this encryption would occur as part of the online submission of data through the ETL portal.

- 12) Is the successful vendor required to maintain different versions of ETL processing? For example, if the Claims data stream file format is changed (fields added or removed, etc.) or some of the code values are changed, is the expectation that all 3rd parties will abide by the new file format at the same time or does the system have to support different file formats concurrently?**

As the data formats are codified in rule, all data submitters are required to change to new formats upon the effective date of the change. Typically data submitters are given at least a six month notice of changes.

However, as noted in the RFP, the Agency does require the ability to configure uploads of irregularly formatted files (from Federal payers or others) when the data elements within those files correspond to the

data elements of the defined files, so it is possible that the Agency would be submitting different file formats into the various data streams.

**13) Is there any type of standard error reporting file format or standard error codes when reporting errors/warnings?**

Not currently. The current vendor submits a standard formatted report to data submitters, but it is not the intent of the Agency to replicate this report or these error messages. The State anticipates that it will develop error messages with the successful bidder to help clearly articulate issues with file submissions to data submitters.

**14) Is it MHDO's desire to have MHDO staff configure edits throughout the contract term, or will vendor perform this function?**

MHDO staff will perform this function.

**15) What does the MHDO contemplate for edit and threshold situations where a warning would be given rather than have the data submission fail for not meeting the load requirements and edit values?**

In these cases, the data submitter must acknowledge receipt of the warning, make any pertinent comments, and elect to submit the data despite the warning. This information should then be held in the system as meta-data, available to data requestors upon receipt of any query that includes data from this source.

**16) Could you please elaborate on what you mean by "hard coded"? While it is understood that the MHDO establishes all edits and their parameters, and that threshold values need to be flexible by data submitter and data element, and may change over time, code still needs to be written to create the base from which the values can be altered.**

Agreed. The vendor may write code or the vendor may elect to leverage a commercial off the shelf ETL package which performs these functions. The ETL "engine" – the software that processes the files and interprets the edits / validations and provides the mechanisms through which staff can configure edits – is not meant to be modifiable by MHDO staff. The specific validations and edits, however, are. An analogous, albeit simpler, configuration is the Rules functionality in Microsoft Outlook – users may establish their own rules for email processing within Outlook, but users are not changing the source code of Microsoft Outlook. Therefore, it is not, for example, acceptable to require a change ticket and coding in order to require an additional threshold check on a field, or to define a field as date vs. character.

**17) "Formatting" edits all seem to be data type validations – is this correct?**

Type and regular expression matching (e.g., zip code conforms to 99999 or 99999-9999).

**18) Will the data stream processing need to validate code values? If so, how will these code tables be populated and maintained? Is the successful vendor required to develop and provide a user interface to assist in the maintenance of the code values or will these code tables be updated via file updates from an external source?**

Yes, the system will need to validate external codes such as NPI and CPT. MHDO typically updates these code sets from file sets from national sources. Designing an efficient way to maintain these code sets is within the scope of this project. MHDO anticipates that data submitters may occasionally have more up to date code values than the MHDO has, in which case data submitters should receive a warning but be allowed to override.

**19) Do we need ability to trace back the data source (submitter, institute, hospital etc.) from a particular data in warehouse?**

Yes, this information should be contained in the meta-data held on each data submission.

**20) Is the platform expected to also support configurable data cleansing rules? (For instance, reference data lookups for populate missing data. Or if data input data format is not correct then rules will be run to format the data). Is this true for structured and unstructured data?**

In general the MHDO does not support data cleansing and/or manipulation. The data are meant to accurately reflect what is contained within the submitters' systems. Data "scrubbing" or cleansing should be the responsibility of the data requestor, who understands the uses of the data. Meta-data should fully describe variances and non-compliance issues held within the data to allow the requestors to make appropriate decisions and take appropriate actions. Formatting issues are obviously the responsibility of the submitter, and, in cases where there are formatting non-compliance issues, the system should reject the submission.

**21) What "unanticipated sources" of data are being considered and should a budget item be allocated for this activity in the proposal?**

Unanticipated sources could include Federal CMS, other State Medicaid organizations, private consulting / research facilities, other State APCDs, etc. Bidders should consider not the number of potential "unanticipated sources" or files in pricing, but rather the development of the tool that will allow the MHDO to manage files in different layouts that contain essentially the same data elements as the standard files.

**22) Are the file validations/edits specific to a file type (medical claims, eligibility) or are there submitter specific rules?**

Validations must be configurable at a submitter level, as specific submitters may be granted threshold exemptions based on their particular circumstances.

## **IMMEDIATE FEEDBACK**

**23) On what types of checks is "immediate feedback" expected? A comprehensive data audit cannot occur immediately. This requirement was clarified during the Bidders' Conference with respect to the interpretation of "real time" and "immediate". Please provide more detail on this clarification with respect to the anticipated processing time for providing feedback to submitters.**

As stated in the Bidder's Conference, the Agency recognizes that the processing and validation of large data files may not be "immediate" in the sense of being able to provide feedback in a matter of seconds. To clarify, the Agency's requirements are:

- a) the system is optimized to process and validate file submission as quickly as possible;
- b) the system attempts to make as many validations as possible per submission to reduce iterations; and

- c) the system provide feedback automatically to the data submitter at the conclusion of processing and validations of files rather than requiring human intervention.

The Agency's goal is to provide data submitters with as much feedback as possible as quickly as possible to allow them to correct and resubmit data files in a timely manner.

## NON STRUCTURED DATA / FORMATS

- 24) Can you please provide additional details regarding the "non-structured data" requirement? What is the intent of this requirement? Does MHDO have a preference or requirement with respect to the storage of unstructured data, e.g., as BLOBs within the database structure or as discreet documents within a shared environment referenced by URIs stored within the database? Can it be assumed that within the submission process, these documents are associated with structured data elements? Are specific behaviors associated with types of unstructured data (e.g., invocation of software applications) anticipated as part of the data warehouse solution? Is there any requirement current or future to harvest data from unstructured sources?**

The Agency anticipates non-structured data submissions primarily as Adobe PDF files, but also Microsoft Office (Word, Excel, PowerPoint, etc.) and potentially image files (tif, jpeg, etc.). It can be assumed that these non-structured objects will be associated with structured elements within the warehouse. The Agency does not have an architectural preference for how the non-structured objects are stored (although our experience is that performance is typically better with documents stored outside the DB and referenced through a URI held within the DB).

Non-structured documents are typically supporting material for one of the Agency's data streams or for qualifying information about a data submission. For example, the Agency will need to store hospital financial reports, which will be provided in a variety of formats. Or a data submitter may provide a legal / technical memo describing limitations in their data submissions that the Agency would wish to store as part of the meta-data scheme explaining the data.

The Agency does not have the requirement to extract or "harvest" data from non-structured objects through OCR or such mechanisms. The Agency does not require any special application workflow triggers or special behaviors upon submission of non-structured data.

## RULES AND SPECIFICATIONS

- 25) Are the rule specifications available for review? Are there specific privacy requirements? Are there any specific regulatory requirements? Do all data submitters submit data in the same format?**

Rules are available at <http://mhdo.maine.gov/imhdo/rules.aspx>. All data submitters are required to submit in these formats (except the Federal Government). Privacy and other regulatory requirements are detailed in the documentation referenced in Part VII of the RFP.

## TIMING



**26) The project timeline indicates the successful bidder needs to provide the ability to accept and store claims data in only five months. Is it expected that the contract negotiations, project planning, requirements analysis, design, development, testing, training and implementation be completed in this timeframe?**

Yes.

**27) What aspects of current operations are available for takeover by a new contractor?**

The current operations (staff and systems) are owned by the current vendor and are not, as far as MHDO is aware, available for takeover.

**28) Can a second question period be established so that vendors can ask for additional clarifications after receipt of responses to the initial round of questions?**

Given that MHDO received over 350 questions in the first round, the State feels it is not feasible to provide a second round of questions and answers within the current proposal timeframes.

**29) Will the state extend the bid deadline beyond the current August 27 deadline?**

No. The State appreciates that the current timeline is aggressive but feels that there is sufficient time for vendors with the appropriate experience to prepare bids.

**30) The timeline in the “Staged Build, Convert and Operate” section of the RFP indicates that APCD Operations begin in Phase 2, but the paragraph following specifies the ability to accept and store claims must be completed by February 28, 2013. Please clarify the seeming disparity in these dates.**

The “APCD Operations” in the timeline refers to the work maintaining and operating the APCD after **all** APCD development work is complete, including the conversion of historical data, the build of the common data elements, and the ETL and web access platforms. The Agency currently envisions that the APCD must be able to accept and store new claims before some of these other development efforts are complete, i.e., by end of February 2013.

**31) The RFP indicated the current contract expires December 2012 and that the new system will be implemented after that date. Is it your intent to extend the existing contract to cover the interim period? If not, how do you intend to collect, edit and store data during the interim period?**

The current contract covers claims incurred and paid through December 31, 2012. These will be submitted through February to the current vendor, who is responsible for processing them. There is no requirement to extend the contract through that period, since it represents the “lag” between the claim date and the submission date. Appendix QA-D is the existing Management Services Agreement between Onpoint, the Data Processing Center, and MHDO. This agreement more fully explains the arrangement.

**32) When will vendors be notified of their oral presentation date and time?**

Vendors who are invited to provide an oral presentation will be notified by August 31<sup>st</sup>.

## BUDGET

- 33) As it is a matter of public record, can MHDO please share the expenditures for the current APCD data services?**

Appendix QA-D is the existing Management Services Agreement between Onpoint, the Data Processing Center, and MHDO. This agreement describes the existing financial arrangement.

- 34) Could you please describe anticipated budget for the project?**

In an effort to secure the most competitive bid the MHDO is not providing the specific budget amount for the contract periods identified in the RFP.

- 35) The State Statute referenced on page 19 of the RFP gives MHDO's budget for 2002-2003. Please provide a reference to more up to date budget information, and/or specify the degree to which the 5% annual budget increases described in the Statute have been sustained.**

Appendix QA-E is the June Financial Summary for the Maine Health Data Organization

Given the financial pressures facing the State there has been a freeze on increasing revenue. In fact, in the last biennium the MHDO's allocation from the Legislature was flat. The MHDO's total authorized allocations and expenditures for state fiscal years ending in 2008- 2011 are as follows:

State Fiscal Year	Total Allocation	Total Expenditure
2008	\$1,966,297	\$1,271,809
2009	\$2,064,612	\$1,398,197
2010	\$2,167,842	\$1,574,601
2011	\$2,153,109	\$1,753,109

## CLOUD / SYSTEM ENVIRONMENT(S)

- 36) "Cloud" computing can be defined many ways. Can you provide your definition of a "cloud" for the purposes of this RFP? Does the State require use of a specific cloud platform (like SQL Azure) or is any data center hosting "cloud storage"?**

For the purposes of this project, "cloud" computing simply refers to a system in which the software and hardware that makes up the solution is hosted and supported remotely.

- 37) In order to provide a high level of scalability and the best fail-safe features is it acceptable to lease third-party cloud-infrastructure (e.g. Amazon, Microsoft) if the servers will be located within the continental United States?**

Yes.

- 38) Is the bidder (vendor) expected to own and manage the data center and its facilities or will it be acquired by MHDO?**

The vendor is expected to own (or lease) and manage the data center.

**39) Are there any restrictions on having a single data center or is the vendor free to choose distributed data centers within US boundaries?**

There is no restriction on single vs. multiple data centers as long as the vendor can meet the performance and security requirements of a negotiated contract and SLA.

**40) Does the state require that the computer platform(s) be located in the state of Maine?**

No.

**41) Does the state require that the computer platform(s) be located within the United States?**

Yes

**42) Does the state require a physically separate disaster recovery or business continuity solution facility for this project, or could all systems be located in a single facility?**

All systems could be located in a single facility, assuming that some backup / recovery option was available to the State in case of physical disaster and that the vendor can meet the requirements of a negotiated SLA.

**43) Does the state require a physically separate platform for test & development system for this solution (vs. production), or will a single physical platform with multiple data sets & databases suffice (i.e. one set for production, one set for development, and one set for test)?**

A single physical platform with multiple databases is acceptable, assuming that the vendor can meet the performance requirements of the negotiated SLA.

**44) Is the Health Data Warehouse the first application to be hosted in cloud architecture for MHDO? If no, which service provider is hosting this service? If yes, does the State of Maine have any preferred cloud service providers?**

Yes, the data warehouse is the first application to be hosted in a cloud architecture. The State does not currently have a preferred cloud service provider.

## **OPEN SOURCE / TECHNOLOGY STACK**

**45) Does the State have any aversion/preference to open source?**

No preference or aversion. If bidders wish to propose open source solutions, please be specific in describing your support model.

**46) For the Health Data Warehouse, does MHDO have a preference towards Microsoft technologies for its database, ETL and reporting solution since MHDO currently uses Microsoft technologies to support claims data? Is MHDO willing to consider other ETL and reporting tool other than SSIS (SQL Server Integration Services)?**

No preference or aversion.

## TRAINING

**47) Can on-line meetings and video take place for some of the training required in the RFP?**

Yes.

**48) Are you requiring a total of 20 hours for all of the System Administrator / Technical classroom training, or are you requiring 60 hours of training?**

The Agency requires up to 60 hours.

**49) Please describe the objective of each of the training modules.**

The three training modules described in the RFP are roughly focused, respectively, on:

- 1) Overall system architecture, network design, and security
- 2) Database architecture and DBA functions
- 3) System administration

## PROJECT MANAGEMENT

**50) How detailed must the project plan be? What milestones need to be reproduced?**

Under an Agile (or “Agile like”) methodology an initial project plan need not be detailed down to the task / sub-task / resource / dependency level. Rather, a plan should specify the time period for a complete iteration (e.g., three weeks / four weeks), the breakdown of activities within that iteration (e.g., story gathering, development, testing, and deployment) and the high-level functionality goals for the iteration.

**51) What level of resources does MHDO anticipate providing to the project phases supporting development and deployment of the Data Warehouse solution? Specifically, how many FTEs will MHDO allocate to the business stakeholder role in Agile development processes? Is the plan for these resources to also assume responsibility for system administration once the solution is deployed?**

MHDO plans to dedicate at least four FTEs to this project, although given the nature and size of the organization, vendors should expect that the entire staff will be involved at various points of the project. Roles and responsibilities will be determined during the project, but the expectation is that the vendor and the MHDO will share system administration once the solution is deployed.

**52) Although RFP page 14 requires the Agile methodology, the comments at the bidders’ conference implied a willingness to consider other methodologies (i.e., Waterfall, etc.) that are commonly used in implementation projects. Are other PMI methodologies acceptable?**

Yes. However, any proposed methodology should demonstrate a facility with iterative functionality deployment, adaptability to change mid project cycle, and general adherence to the principles of Agile projects as described in the RFP.

- 53) Do you have facilities available to house our Maine team? If so, please describe what is available and the number of team members you can accommodate.**

Yes. MHDO can provide facilities for up to 10 vendor team members. This includes cubicle and/or conference room space and network connectivity. Computers and phones (land lines) can be provided or the vendor can supply their own, as the project warrants. Vendors should assume for their cost proposal that they will be required to provide computer and phone equipment.

## **PROPOSAL INSTRUCTIONS**

- 54) It is requested that the electronic copy of the proposal be submitted in MS Office format. Is it acceptable to submit the electronic version in Adobe (pdf) format?**

The State would prefer submissions in MS Office format. However, bidders may submit in Adobe PDF format.

- 55) Please specify what financial forms are required.**

No specific financial forms are required for this RFP.

- 56) Please confirm that the implementation plan (requested on pg 28), the project organization chart (requested on pg 31), the example user guide (requested on pg 31), the cost proposal form, and the example technical documentation (requested on pg 31) are all considered required attachments and do NOT count toward the maximum total number of pages allowed.**

Confirmed.

- 57) Section IV of the RFP provides details of the required content of bidders' responses to the RFP. Should proposals follow the exact numbering scheme of Section IV?**

Yes.

- 58) Appendix A of the RFP provides a sample cover page. However, if the format of this sample is replicated using the font and layout requirements specified in Part IV Section A of the RFP (page 22) the required information extends to a second page. Is this acceptable, or should be the cover page be formatted such that all required information fits on a single page?**

The cover page information / form may extend over more than one page.

- 59) Part IV Section A point 1 of the RFP (page 22) specifies the use of 12pt text for the proposal. Does this requirement apply to page headers, page footers, and any footnotes, or can a smaller font be used for these elements? Part IV, Proposal Submission Requirements, A. Proposal Format, Question 3 – Would the State consider exempting forms and attachments from having a page number if forms and attachments are separated with a tab and labeled appropriately in the hardcopy (e.g., Tab A – Sample Reports)?**

Headers, footers, footnotes, and required attachments (e.g., technical documentation, org charts, etc.) may be provided in smaller / different fonts from those required for the main proposal. Forms and attachments may be separated with tab and labeled appropriately in the hardcopy.

- 60) The Cost Proposal Form (Appendix B of the RFP) calls for total costs associated with each specified period of performance. However, other elements of the RFP identify specific cost requirements, e.g., under Cloud Deployment (page 12): “Bidders will need to provide detailed information on their cloud computing strategies and support structures, including costs”. Does MHDO require a detailed cost proposal (including labor rates, hosting costs, software license and maintenance fees, etc.) in addition to the tabular summary required by Appendix B? In order to present our pricing clearly, we would like to include assumptions on the Cost Proposal Form. Is this acceptable? If not, is there an alternative location in the proposal for including assumptions?

MHDO does not require detail beyond that included in the Cost Proposal Form (Appendix B). However, Bidders should be clear in their proposals as to what services they are including in their bids and what services they are excluding. In cases where the bidder is excluding costs (e.g., for software licensing) MHDO will estimate these costs in order to ensure cost proposals are evaluated fairly.

- 61) The RFP states: *“Bidders are asked to be brief and to respond to each question and instruction listed in the “Proposal Submission Requirements” section of this RFP.”* Does this mean each question in Part B: Proposal Contents or both Part A and Part B.

Within the Proposal Submission Requirements, Part A contains general formatting instructions for bidders’ proposals. Part B contains specific questions and responses the bidders must address in their proposals.

- 62) Should the cost be submitted within the technical proposal or must it be separated?

No, costs should be submitted separately in the Cost Proposal Form. As noted above proposals must follow the numbering conventions of the RFP:

Proposal Contents

Section I: Organization Qualifications and Experience

Section II: Specifications of Work to Be Performed

Section III: Cost Proposal

Section IV: Economic Impact

- 63) In lieu of providing a copy of the face page of the bidder’s general liability, professional liability and any other relevant liability insurance policies that might be associated with the contract, would the State accept a Certificate of Insurance setting forth the types of coverage and amounts on a standard Accord form?

We are officially changing the RFP to require submission of standard Accord forms for this information.

## RECOVERY / SLA

- 64) What are the Recovery Point and Recovery Time objectives for this backup? Will the state agree to relax this disaster recovery downtime policy from 24 to 48-72 hours?

Yes, the State will agree to consider a recovery downtime period of 48 hours. From the State's perspective, full functionality (i.e., data access and data submission) must be available at that point.

**65) What are the expected SLA requirements?**

The RFP asks for a sample SLA from the bidder. The Agency expects the SLA to cover industry standard performance metrics such as, but not limited to, response times for trouble requests, performance of the system, system availability, etc.

**66) Are Service Level Agreements currently in place? If so, can these agreements currently in place be provided so as to ascertain the anticipated service levels for the new contract? Do you anticipate that the new SLA's will be reasonably similar to any existing SLA's?**

There is no formal SLA in place between the existing vendor and MHDO. The current Management Services Agreement is attached as appendix QA-D.

**67) On page 18 of the RFP, there is a reference to MHDO establishing service level agreements while on page 28, the vendor is to include proposed SLAs as part of their proposal. Would the state clarify that the actual service level agreements (as well as the penalties) will be mutually agreed upon as part of contract negotiations?**

Yes, the intent of the State is to mutually agree to a SLA with the successful bidder as part of contract negotiations.

The State will evaluate the SLA provided by the bidders in scoring the proposals to ascertain the types and levels of service the bidders have typically agreed to with their other customers.

**68) Can vendor assume that the downtime policy applies to only unplanned system outages (i.e., Disaster Recovery)? Additionally, do all components of the vendor solution fall under the 24-hour policy (e.g. data management vs. self-service reporting and data access)?**

Yes, the downtime policy is not meant to apply to planned outages (for upgrades, maintenance, etc.). Yes, all aspects of the solution are subject to the downtime policy.

**69) Page 26, last item on the page, Item i. Would MHDO have a preference to have a mirror image of the database for disaster recovery located at the Maine OIT data center?**

MHDO does not require that a mirror image be held at the Maine OIT data center.

## REPORTS

**70) There are several references in the RFP to the ability to access "higher-level standard reports" as well as "predefined and static reports". Will the successful bidder be required to develop these reports?**

No, the bidder will not be required to develop these reports. Given the requirement that a self-service web platform must be available for data requestors and that MHDO staff have table level access to the warehouse, the Agency anticipates that MHDO staff will be able to develop the reports.

**71) Are there any specific performance requirements for ad-hoc reports?**

These will be defined with the successful bidder.

**72) Do you foresee multi-lingual reports?**

Not at this time.

**73) Is external access to the raw data sets to be provided same as the input data that was provided or will these be generated by the data warehouse in a standard (MHDO defined) format?**

Data released from the warehouse must be in a different format from that submitted since a number of elements required for submission are protected. Currently there is no file layout standard for data release / reporting – Chapter 120 defines the elements that are available for public release.

**74) We understand that the current reporting requests are handled on an ad-hoc basis. Is this reporting done in house currently or is there a consulting firm engagement by MHDO to do this?**

This reporting is done in-house.

**75) Does MHDO have specific use cases for information analysis/static reports? In aggregating and preparing APCD data to support end-user analytics, what specific value-add services will the vendor be required to provide? Following are examples: incurred service claim consolidation, hospitalization identifiers, length of stay, patient age, type of service indicators, and special purpose flags.**

To be determined. In conjunction with this project MHDO is reconvening its user group and expects to gather requirements and expectations from this group that will inform potential groupings and logical data structures (data marts / views) for end user analytics and reporting.

**76) What capabilities does MHDO envision for self-service report generation?**

Self-service report generation should allow data requestors to download large data sets (e.g., all claims for a given period) and allow for the build of more granular queries (e.g., all claims for a specific geographic area, all claims for specific procedure or procedure set). Note: custom reports will be subject to all requirements under **Chapter 120: Release of Data to the Public** and cannot disclose information that that would allow for the identification of individuals.

**77) Will the State need to have ad hoc reporting beyond a 12 month level of data?**

Yes.

## **WEB SERVICES**

**78) What types of data will be provided through web services – master data, transactional data? What type of activity do you anticipate supporting via web services, as it is not efficient for moving large amounts of data?**



The web services should provide both transactional data (i.e., data from data submitters) and meta-data (i.e., data captured about the data submissions). Web services can be optimized for larger data sets based on required use. However, the Agency understands that not every data requestor will have the capacity to download large sets through web services and wishes to support alternative means of self-service access, from other protocols (e.g., FTP) to requesting external media (e.g., DVD). The guiding principle for this requirement is not web services per se, but self-service.

**79) With respect to the requirement for Web Services APIs (page 11), please provide estimates of the number and complexity of the web service APIs to be provided to 3rd parties.**

To be determined. However, the web services environment should be configurable and dynamic. Tools within the environment should provide a means of creating and modifying APIs with little resource investment. Therefore bidders should consider the effort to provide such a tool rather than the effort in creating X number of APIs.

**80) The requirement for Self-Service Data Access on page 11 of the RFP states that MHDO needs to be able to “configure which data elements can be provided under different circumstances and authorization levels, etc.” Should this be interpreted as a required capability to dynamically configure the web service APIs through a UI interface, etc.?**

No. The APIs should be robust enough to “understand” the authorization level of the requestor and to know what data elements are available to that role. Typically these authorizations would be held outside the structure of the API (in a DB table, for example) and could change, but the API would not need to be modified in that circumstance. There should be a mechanism for making role / authorization changes, but the scope of those changes is greater than the API. However, as noted above, the APIs themselves should be configurable through a provided toolset in order to allow modifications for other business reasons.

## CONTRACT TERMS

**81) Is MHDO willing to negotiate terms of the State of Maine Agreement to Purchase Services (BP540EO-IT)? Should the proposer submit requested modifications to the contract along with the proposal?**

The State will evaluate bids based on the specifications and requirements detailed in the RFP.

Proposed changes to the terms and conditions of the State contract will be considered during the negotiation phase and will determine whether the State can enter into a final contract. As stated in the RFP, in the event that an acceptable contract cannot be negotiated with the highest ranked Bidder, the State may withdraw its award and negotiate with the next-highest ranked Bidder, and so on, until an acceptable contract has been finalized.

## STAFF / ROLES AND RESPONSIBILITIES

- 82) Please describe the roles/responsibilities for supporting the vendor solution. What is meant by “allows MHDO staff to operate and support the system”? Is it the intent of the MHDO to have the vendor develop a system to receive, edit, and load the claims data and then turn it over to the MHDO staff to operate?**

Roles and responsibilities will be further defined in the planning process. The intent is to have the vendor and MHDO share operational responsibilities for the system over the period of the contract. It is essential that MHDO staff understand the operations and be able to perform operational functions when required. In general, it is MHDO’s expectation that the vendor will maintain responsibility for most routine technical functions (network support, DBA, software upgrades, etc.) while MHDO staff will manage administrative, user support, and analytic functions (adding users, creating / changing edits, running ad-hoc queries, etc.)

- 83) If operational functions are provided as stated regarding MHDO staff administrative privileges, how will communication and control be administered between MHDO and the vendor?**

The State expects the vendor to propose communication models as part of their bid. Control models will be determined as part of the larger project of determining roles and responsibilities.

- 84) Page 38, Number 7 of the RFP refers to the Deloitte assessment. Page 52, Paragraph 2 of the Deloitte Assessment report recommends three positions: Project Manager, Business Analyst, and DBA. Does MHDO intend on filling these positions or is the MHDO Data Warehouse vendor expected to provide the function described for this staff?**

MHDO does not require the vendor to provide specific resources to fill these positions. However, it is the expectation of the State that the vendor will have the skills associated with these roles among their team members.

- 85) What is meant specifically by “full access” to test environment? What is the purpose of this request?**

Full access means that MHDO staff should be able to add/change/delete system level objects such as procedures, tables, functions. While access to all environments will be defined under roles and responsibilities and the data governance model, the guiding principle is that MHDO staff should be able to test system level changes / fixes in an environment without requiring submission of change orders / tickets in order to do so. Given MHDO staffs’ familiarity with the data and the data structures, it is imperative that they be empowered to make changes quickly in order to support data requestors and submitters.

## **MASTER INDEXES**

- 86) Does MHDO already have an EMPI solution?**

No.

- 87) Please clarify what is meant by “common element” in the STAGED BUILD, CONVERT, & OPERATE EFFORT table (page 15). Would this be the development of the Common Data Structures described on pages 10 – 11?**

Yes, including the master patient index, the master provider index, and the master payer index.

- 88) The RFP states: “The objective is to ensure that each patient is represented only once across all streams.” Will the system be expected to identify potential duplicates? If so, will the system need functionality for merging duplicate patients?**

Yes. The master patient/provider/payer indexes should identify and merge duplicate entities.

- 89) Will the Vendor be responsible for supplying the NPI when it is not submitted by the data source? If so, what data elements will be made available to complete that assignment?**

The vendor will be responsible for attempting to match submitted data to the master provider index even in cases when NPI is not submitted. To be clear, the data submitted should not be modified (the lack of NPI would be noted in the meta-data). Typical fields for matching to the provider index would be provider name and address.

- 90) Is a master provider index to be created for all providers treating Maine residents or does it focus on Maine providers treating Maine residents?**

The provider index should include all providers treating Maine residents to the extent possible.

- 91) Will the vendor of choice be responsible for the ongoing maintenance of the various Master Indexes?**

Yes, unless the vendor’s solution is to leverage an existing external Master Index maintained by another party.

- 92) Please confirm that the common data structures are restricted to Master Payer Index, Master Patient Index, and Master Provider Index.**

It is possible that other master indexes could be created if other common entities are identified during the design phase.

## OTHER

- 93) Is it a requirement that the rules engine be provided by a third party vendor?**

No.

- 94) The RFP refers to “interested third parties” that require data access. Please provide examples and what levels of restrictions will be placed on them?**

Current end users include, but are not limited to, the Maine Hospital Association, the Maine Health Management Coalition, Maine CDC, health systems in the State, and academic research institutions.

- 95) How long will the Chapter 243 specification of the input format be valid, in light of the requirement that claims data be in 5010 format as of June 30<sup>th</sup>, 2012? And what will the programming and development standard be as of October 1, Chapter 243 or 5010?

The MHDO's Chapter 243 specification for claims submission is entirely separate from the ANSI X12 5010 standard, which pertains to the submission of claims from medical providers to insurance companies. The development and acceptance of the 5010 standard has no bearing on the MHDO's use of the Chapter 243 specification. The MHDO will continue to use the Chapter 243 specification until the law or the rule is changed.

- 96) Does the state also wish to acquire a Health & Human Services logical data model and data modeling services to enable analysis of all of the health programs and their related facets which are now, or could be in the future, the subjects of this project?

No. Programs related to Health and Human services are the purview of the State Department of Health and Human Services.

- 97) Does the state need direct connectivity between a mainframe and the database platform(s)?

No.

- 98) PHI is currently allowed by law, but prohibited by law from being disclosed; not currently collected. A 2011 legislative proposal intended to allow for release did not pass, but will be evaluated under a legislative study. Will the APCD collect PHI? Will it be able to share PHI with users?

The Agency will continue to collect PHI in the manner it is collected today. The Agency will administer the release of PHI in accordance with Maine statute and agency rules.

- 99) Appendix D Additional Recommendations Received in Comment Period:

***Maine Health Management Coalition Recommendation: Initiate a 3 year public-private demonstration under Aligning Forces for Quality (AF4Q) and Maine's Chartered Value Exchange (CVE), with Robert Wood Johnson Foundation (RWJF) and Maine Health Access Foundation (MeHAF) support, to utilize Health Data Management Solutions (HDMS) to pilot the above recommendations.***

***The state should support a pilot effort, under the guidance of Aligning Forces for Quality and Maine's Chartered Value Exchange, with support from RWJF and MeHAF, to send all commercial, MaineCare, and Medicare claims directly to MHMC's data vendor, with appropriate state of the art controls on the appropriate distribution of that data to improve the health of Maine people and manage the cost of care. This demonstration would allow many of the needs cited in this report to be met much sooner, and provide some real world experience and learning to inform how Maine builds its data infrastructure.***

Was this demonstration provided?

No.

**100) Can you please confirm whether you would need to maintain/track history of source data changes in the Data warehouse?**

Yes, this information would absolutely need to be tracked. Typically source data in the warehouse should never change.

**101) Kindly list the types of file formats which need to be supported to make data warehouse data available for 3rd party? (Examples are mentioned in RFP, but useful to have count/complete list).**

To be determined in design phase and through work with user group.

**102) Will most of the data usage be “read only”?**

Yes.

**103) What kinds of applications access are required – transactional systems, real time systems, decision systems, dashboard aggregations?**

Primarily simple analytic and aggregation functions. The State does not anticipate any sort of transactional / real-time / operational applications to be built on the warehouse. However, based on further discussions with the user group, MHDO may make various logical structures / data marts available to specific roles for real-time and business intelligence applications through web services.

**104) Is MHDO currently providing direct access to the MHDO warehouse? How is this currently handled?**

No, currently only a limited number of MHDO employees have direct access to the various databases.

**105) Is the state expecting the vendor to provide multiple technology upgrades during the course of the 10 years contract?**

Yes.

**106) Who will be on the review team for this RFP? Internal? External?**

The review team will be made up of leadership from MHDO and its Board and representation from the State CIO.

**107) Will there be a fee for service charged to end users in the new system as exists in the current system?**

Yes.

**108) Does MHDO anticipate any requirement for any following in near future:**

- **Fraud Waste and Abuse analytics**
- **Need for any episode analytics (bundled payments)**
- **Any DRG analytics requirement**

MHDO does not anticipate a requirement for these analytics under the scope of this project. The Agency anticipates that MHDO staff will be able to develop these analytics in the future using the tools provided under this implementation.

**109) If not awarded the contract, would OnPoint still serve as the gateway for data submitters?**

No.

- 110) While data dictionary exists for some of the file formats such as claims, hospital data etc., they don't exist for few of them such as Quality Metrics. Can MHDO furnish those?**

Quality data submissions are defined in Rule Chapter 270 and further detailed at this page:  
<http://mhdo.maine.gov/imhdo/qualitydata.aspx>.

- 111) For EMPI, Provider Index etc., the RFP states that this information should be available as web services for consumption by other state level entities. Does MHDO envision these 3rd party state level entities to submit partial data for matching and de-duping? For instance, a state agency could submit data for the patient demographics and get the EMPI ID in MHDO.**

Yes, we would envision that being one possible function of the shared resources.

- 112) In the RFP Section D Contract term, the initial term of the contract is from Oct 2012 to Jun 2014. However, in section "STAGED BUILD, CONVERT, & OPERATE EFFORT" the development and deployment continues till Jun 2016. In that connection, could we assume that the initial contract period is from Oct 2012 to June 2016?**

No. The initial term of the contract is from October 2012 to June 2014.

- 113) In the section "DOCUMENTATION", MHDO states that operations could potentially be transferred to another vendor. In that case, does the winning bidder also have to transition the cloud infrastructure to the "operations" vendor?**

Yes, or make it possible to transition the system to another cloud.

- 114) Does MHDO expect the vendor to purchase hardware/software required for this project? Can the vendor submit a bid so that MHDO owns the license for Operating system, Database etc. so that we can leverage any state level pricing agreements for the required software?**

MHDO expects the vendor to purchase / lease the hardware, consistent with the cloud computing architecture specified in the RFP.

MHDO will consider bids in which the State owns software components of the system.

However, in cases where the bid assumes State ownership of software, the vendor must be very clear about which licenses it expects the State to purchase in these cases, since in evaluating the costs of the bids, the State will incorporate these external costs into the overall cost of the bid. Furthermore, the vendor must be clear in these cases how it would foresee the transfer of the system to another vendor.

- 115) Are all submissions received in file format? Are there plans or requirements for more real-time data submission channels?**

Currently some submissions are received in file format (via SFTP) and some are loaded through a web portal (via HTTPS). There is no plan or requirement to require other data submission methods.

- 116) How does the state keep data attributes relevant over time? Does the data go through data conversions from time to time? What is the likelihood and estimated timing of Maine’s collection rule changes relating to significant format changes (e.g., X12), coding changes (e.g., ICD-10), and state data needs?**

As national standards change (e.g., the shift from ICD-9 to ICD-10) the state, like all other affected entities, will shift its data submission requirements and databases to reflect the new standards. The state must go through formal rule changes to accommodate these shifts, which require public notice and input, including notice to all data submitters. Data submitters will typically have up to six months from the adoption of a change to a rule to needing to actually change the submitted files.

In general there is no requirement to convert historical data to new standards when these shifts occur. Instead, the meta-data about the data submissions should be updated to reflect the changed standards, so that data requestors can know that the data they have received reflects various standards.

- 117) Is it necessary to identify all third party providers (staffing suppliers) or would just naming likely ones be sufficient?**

The State requires that if subcontractors are to be used, you must provide a list that specifies the name, address, phone number, contact person, and a brief description of the subcontractors’ organizational capacity and qualifications.

- 118) Are research institutions such as universities, professional organizations, and/or research professionals included in current or future users of the data warehouse?**

Yes.

- 119) Is Onpoint Health Data permitted to submit a bid in response to this solicitation?**

Yes.

- 120) Is MHDO receiving all data in compliance with the published file specs?**

Yes. Some submitters have been granted specific threshold exemptions on specific elements due to limitations in their systems, but all submitters (except Medicare) comply with the formats and layouts specified in the MHDO rules.

- 121) Does the current solution allow for customized edits? If so, can the selected vendor leverage that or is a completely new solution desired?**

The current solution does not allow for MHDO to configure or customize edits.

- 122) Are all business rules for validation established and documented?**

No.

- 123) What data governance processes and procedures are currently in place? Do these need to be reviewed and/or enhanced or developed from scratch?**

Data governance is contained in MHDO's statute and rules, its data dictionary (appendix QA-A), and in its Management Services Agreement with Onpoint (appendix QA-D) The successful bidders should expect to develop these, to a large extent, on existing practice and structure and these artifacts, but there is the opportunity to revisit and change these where appropriate.

**124) What are the interested 3<sup>rd</sup> parties referenced in the common data structures section?**

Some of the interested 3<sup>rd</sup> parties may be: HealthInfoNet, Maine CDC, MaineCare, and Maine hospital systems (e.g., Maine Health, Eastern Maine), Maine Bureau of Insurance, and the Maine Health Management Coalition.

**125) Is there an existing SharePoint or portal infrastructure that the selected vendor will be expected to leverage for access to and presentation of this data or are the presentation tools left to the discretion of the selected vendor? Will MHDO be supplying any web "front end" or will the vendor be responsible for all web access GUI and interface design for reporting and/or data access services?**

No, the State does not have an existing infrastructure. The vendor will be responsible for tool selection, design, and implementation of the presentation layer.

**126) Has MHDO worked with any vendor to develop this RFP?**

No.

**127) We understand from the RFP that Deloitte was engaged to assess MHDO's current claims data processing and recommend improvements. What was the cost of this engagement? Was the MHDO Assessment and Recommendation engagement sole sourced to Deloitte or was Deloitte selected through a prior RFP process? Was there any other engagement between MHDO and Deloitte after this engagement?**

The Deloitte engagement was for \$77,809.55. The agreement was sole-sourced. There has been no subsequent engagement between MHDO and Deloitte.

**128) In the MHDO\_Assessment report, Page 32, Figure 7, does the Dimensional Data Warehouse currently exist in MHDO?**

No.

**129) Did MHDO get an opportunity to see a demonstration of a reporting solution from any vendors?**

No.

**130) What are MHDO's expectations regarding the frequency of data refreshes for all data types that will be available for end users (e.g., monthly, quarterly)? Is there timestamp associated with all source data that would enable a delta refresh?**



The State does not anticipate that a “refresh” should be required at all. Data should be available in real time to data requestors as soon as data submitters have completed upload and passed all data validations. Data requestors should be able to see, through meta-data, what data sets are available.

**131) Is MHDO willing to release the names of all applicants who submit proposals to this RFP?**

Interested parties may obtain a list of all submitters from the State Division of Purchases. A list of interested parties who participated in the Bidder’s Conference is available on the MHDO website.

**132) Please clarify what functionality is required by February 28, 2013 as mentioned on page 15, last paragraph. Is this requirement limited to accepting and storing claims data?**

Yes.

**133) When inpatient and outpatient data is collected, how will it be submitted? Will there be an intermediary or will the data be collected directly by the chosen vendor.**

It is our expectation that all data feeds will be collected directly by the chosen vendor through the ETL platform.

**134) Please give examples of mapping as referenced in the statement beginning “MHDO staff must be able to map and upload files”.**

Irregular files may have different layouts, formats, and naming conventions and yet contain the same data. For example, a file may contain dates in MM/DD/YYYY format instead of YYYYMMDD format. An identifier such as NPI may be named “NPI” in one file and “NatProvid” in another. Delimited files may use different characters as a delimiter (asterisk “\*” vs. vertical pipe “|”). Files may be delimited or fixed length or in XML.

MHDO should be able to take any file of this sort containing structured health information of types that correspond with the warehouse and map (preferably through a GUI tool) the elements of the file to the corresponding elements in the warehouse, run it through the appropriate validation routines, and load it into the warehouse.

**135) Will the names and Social Security numbers of patients reported across all data streams (i.e., claims, inpatient/outpatient, and other) be available in an unencrypted fashion?**

No.

**136) What type of online data access is MHDO looking for? Is the expectation that MHDO employees will have access to raw, in-process data and other users and MHDO employees will have access to fully processed, consolidated data?**

As noted above, the expectation is that data should be available to data requestors in real time, as soon as it has cleared all edit/validations. So the distinction between “raw in-process” data and “fully processed,

consolidated” data does not apply. External users’ access will be defined through the data governance model and definition of roles and responsibilities.

**137) Can you provide more detailed information on your requirements for real time high order analytics?**

MHDO will require “dashboard” type analytics relative to: number of historical / active submitters, number of historical / active data requestors, total data throughput and requests, number of historical/ active entities (e.g., patients, providers, claims, etc.), submitter by data stream and period. These analytics are to provide the State with an overview of the size and scope of the data warehouse and the number of stakeholders involved contributing to and using the data as well as to support management and enforcement functions (understanding who is required to submit and has not).

**138) In the RFP there are technical requirements like relational database, Agile development, etc. Are these mandatory or are functional capabilities more important?**

Technical and functional capabilities are equally important to this project. The system must be a high functioning, robust data warehouse with sophisticated tools to allow for streamlined and efficient processing of large volumes of data. However, given the complexity of health data, a strong familiarity with claims file specifications, medical coding, and industry practices is also essential.

**139) Does the state require a Master Data Management (MDM) repository(s)? Does the state have a current MDM methodology?**

The State does not have a current MDM methodology.

**140) Is the state requesting the winning vendor to choose the ETL/Reporting/Analytics applications? If so, will the vendor arrange for the licensing and service agreement?**

Yes, the vendor will be responsible for selecting the system applications. The vendor may arrange for licensing and servicing agreements but, as noted above, may also propose an arrangement where the State assumes the licensing. In either case, the vendor must be clear what they are proposing in their bid for the purposes of evaluating the costs of the proposal.

**141) Will the current and future systems co-exist?**

Yes, for a period of time. Given the proposed phased approach aspects of the current system will need to co-exist with the new system. Furthermore, there should be an established fallback / redundancy plan in case of problems with deployment of the new system.

**142) Will operations post implementation be 24/7?**

To be determined. It is not essential that the data warehouse be available 24/7, and in some hosting models having defined off-hours down time may achieve significant cost savings. It is imperative, however, that no data submissions or downloads be interrupted if operations stop on a scheduled basis.